

AMERICAN BEE JOURNAL

46th Year

CHICAGO, ILL., FEB. 15, 1906



Apiary of A. A. Brimmer, of Hoosick, N. Y.

(See page 138.)



Apiary of Arthur Stanley, located in Clark Co., Wis.

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IMPORTANT NOTICES

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(INCORPORATED)

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TESTIMONIALS

We are always greatly pleased to see your new editions of your new catalog of Bee-Keepers' Supplies, etc. We shall certainly make ample mention of it in our paper. You are our best authority in regard to all matters of bee-keeping.

Yours very truly,

C. H. HOWARD, *Editor,
Farm, Field & Fireside.*

Dear Sirs:—The shipment of hives and bee-supplies which you sent me arrived in excellent condition, and every one who has seen them is delighted with the accuracy and precision of the workmanship of every detail, both of the goods and the manner in which the order was executed.

Yours very truly,

Cape Colony. FREDERIC T. BIOLETTI.

I have just now unpacked and examined the goods sent by you, and am greatly pleased with the lot.

Scottsville, Ariz.

W. H. GILL.

Gentlemen:—I am well pleased with your prompt way of doing business. The goods are just simply nice. Many thanks.

Yours truly,
JOHN D. A. FISHER.

I do not want anything set up, as I would rather set the hives up myself. Besides, it is a pleasure to put Root's hives and fixtures together.

Tiffin, Ohio.

JOHN L. FUNK.

Your promptness and square dealing indeed make it a pleasure to do business with you, and I thank you.

HARRY H. LARKIN,

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My bill of bee-supplies reached its destination in due time. I am under obligations to you for the kindness, for a delay would have been a loss to me. Please accept my thanks.

Treadwell, Tenn.

W. W. WATERS, M. D.

I desire to thank you for being so prompt in sending the sections I ordered from you. They came in less time than it takes to tell it.

Kent, Ohio.

L. G. REED.

The consignment of bee-material received to-day. Your promptness in filling orders is remarkable, especially when the circumstances are considered. I am very well satisfied with the goods and your dealing. I take pleasure in having introduced "ROOT'S GOODS" into this neighborhood.

Fredericksburg, Iowa.

REV. WM. ENGLE.

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AMERICAN BEE JOURNAL.

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DEVOTED EXCLUSIVELY TO THE INTERESTS OF HONEY-PRODUCERS.

(Entered at the Post-Office at Chicago as Second-Class Mail-Matter.)

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GEORGE W. YORK, Editor

CHICAGO, ILL., FEBRUARY 15, 1906

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Editorial Notes and Comments

Sulphur and Sugar Syrup for Bee-Paralysis

Sulphur and molasses used to be a favorite medicine "to cleanse the blood." Now comes a correspondent in the British Bee Journal with a somewhat similar prescription for bee-paralysis. It is sulphur and sugar syrup. He says:

"I took away all their stores, sealed and unsealed, and as they were greatly reduced in numbers I contracted the brood-chamber, leaving them only a few empty combs (one or two contained brood), and put a chaff cushion each side of the frames to keep them as warm as possible. Then I made half a pint of sugar syrup, putting in a small teaspoonful of sulphur and 5 or 6 drops of Dr. Collis Brown's chlorodyne. The sulphur must be made up to paste consistency first, as it is hard to mix with the syrup afterwards. I also made the syrup a little warm. This I gave them in a 'Simplicity' feeder on top of the frames. The sulphur settled to the bottom of the feeder, but I suppose they got the benefit of it. I put the chlorodyne in because it is such a universal remedy for rheumatism, cramps, etc., in human beings. At any rate, that treatment quickly cured them, as no more died after they got the doctored syrup, and to-day they are doing well and working away as if nothing had happened."

Dealing With Vicious Bees

The following, from the British Bee Journal, is given with the caution that too much of it might give an unpleasant flavor to comb honey:

If any reader is troubled with really vicious bees, determined to rush out in a body to attack as soon as the hive is approached, he might try the following when there is any necessity to manipulate them:

Charge the smoker with part of an old quilt which has gotten worn out by long use. It will be pretty heavily propolized, possibly on both sides. Being of a rather inflammable substance generally, it may be made up into a roll with alternate layers of some slow-burning material. Thus treated, it will send out dense clouds of very pungent smoke, which will effectually check any attack from the bees on the operator. A very little of it will go a long way, so that too much should not be used, because bees might perhaps be injured by inhaling too strong a dose of this powerful intimidant.

What Is a "Bee-Space?"

If any one has a perfect definition for the term, it will be thankfully received at this office. Perhaps in general it is used to mean the space for best results between different

parts in a hive, so that in such space the bees would do the least in the way of filling up the space either by filling in comb or bee-glue. But does that measure the same in all places? A contemporary advised lately that there should be a bee-space between bottom-bars and floor-board. If by that was meant the same space that works best over top-bars, then the inquirer would probably find in a short time that his frames were no longer movable on account of the bee-glue fastening down the bottom-bars.

Years ago there was more or less of an understanding that $\frac{1}{2}$ of an inch was a proper bee-space. But with $\frac{1}{2}$ of an inch over top-bars there is sure to be much comb built and honey stored in it. As the space becomes smaller, less and less comb is built, but when the space becomes too small then bee-glue is filled in. There is probably no exact space where neither comb nor glue will be built in, but about $\frac{1}{4}$ inch has perhaps been settled on as the space inviting the least of either, with perhaps a leaning toward a space just a shade less than $\frac{1}{4}$ inch. Is that the best space between top-bars? Is it the best space between end-bars and the ends of the hive? Pretty certainly it is not the best space under bottom-bars.

Fastenings When Hauling Bees

At the National convention R. F. Holtermann expressed a desire for a more secure way of fastening bottoms and covers to hives when hauling them. He had used crate-staples, and so far had had no trouble with them; but was a little afraid they were not quite secure enough. Why not add enough staples so that there could be no question as to security?

Sweet Clover a Boon to the Farmer

A. Wicherts, of Matteson, Ill., sends us the following concerning sweet clover, taken from the Joliet News:

"Farmers have long scolded about the encroachment of sweet clover on the highways and along line fences. Now comes a Lockport farmer who claims it is the farmers' best friend. The gentleman, Henry Leiser, says that a patch of it was allowed to grow in a corner of his farm. He plowed it under, and this year got a magnificent yield of corn from the clover spot."

"Not only did this corn yield well, but exceeded that of a neighbor who had used the much-talked-of rock phosphate, from Tennessee."

Sweet clover is not only one of the best things a farmer can use for fertilizing the soil, but it is also an excellent nectar-yielder for the bee-keeper. With the exception of the past 2 or 3 years, sweet clover was an unfailing honey-producer in the region around Chicago. Had it not been

for sweet clover during those years, the bee-keepers in this county would likely have had very little honey, if any at all. There are some bee-keepers who do not seem to like the flavor of sweet clover honey, but we are not of that class; but even if we were, we think we should very much prefer sweet clover honey to having none at all.

When the farmers also learn the value of sweet clover for hay as well as a fertilizer, they will be glad to encourage its more general growing. In some localities the farmers have fought the sowing of sweet clover seed, claiming it to be a weed. This came from utter ignorance of the plant. But if not wanted, it is one of the easiest things to kill out, which can not be said of most weeds. All one has to do to get rid of sweet clover is to mow it before it blossoms. Not allowing it to go to seed will destroy it very soon, as it is a biennial.

Night-Working Bees

A bee that works only by night is to be found in the jungles of India. It is an unusually large insect, the combs being often 6 feet long by 4 feet wide.—Exchange.

The foregoing item is given in all seriousness in a leading Chicago daily newspaper. One hardly knows whether to laugh or get mad on seeing such stuff.



Miscellaneous News & Items

N. H. Smith, and not R. H. Smith, it was who is reported on page 82, in the Ontario convention report, as having taken 25,000 sections of honey from 167 colonies, spring count, and increased to 185 colonies.

Back Numbers since Jan. 1, 1906, we can send for awhile yet to all new readers who desire their subscriptions to begin with that date, so as to have a complete volume for this year. They are all very valuable copies.

The York Honey & Bee-Supply Co., as well as The A. I. Root Co., made an exhibit of honey and bee-supplies at the Annual Poultry Show, held here in Chicago last month. The York Honey & Bee-Supply Co. also had on exhibition the Cornell incubators, brooders, and other poultry supplies which they are representing here in Chicago.

The Wisconsin Apiary of Arthur Stanley is shown on the first page. It contains about 100 colonies, and has been run very successfully the past 2 seasons. The bees have been wintered in a cellar under a dwelling-house with almost no loss. This apiary is managed by Mrs. Stanley practically alone, who, with her little daughter, stand at the left as you look at the picture. The other two persons are Mrs. Stanley's father and mother.

Mr. M. H. Mendleson, of Ventura, Calif., has been selected as Director of the National Bee-Keepers' Association, taking the place of Ernest R. Root, who recently resigned. Mr. Root was elected Director last November, and would have occupied the office beginning with Jan. 1, but he finally decided that it would be better for him to resign than to accept the position, and did so. Mr. Mendleson was then agreed upon by the Executive Committee, after duly canvassing the situation and considering the names of various leading bee-keepers who would make most acceptable Directors. But it was finally decided to honor a California bee-keeper with the appointment, as that State, since Jan.

1, has not been represented in the officiary of the Association, and, also, as Mr. Mendleson is perhaps the most extensive bee-keeper in that State. His honey crop in 1903 was 112,000 pounds, we believe. The selection should be satisfactory to all concerned. We congratulate both Mr. Mendleson and the great honey State of California.

Getting New Subscriptions ought not to be very difficult now. We believe that if a copy of the American Bee Journal were shown to a bee-keeper who is not now reading it, he would quickly see its value to him. And we will be glad to send free any extra copies for samples to be used by our regular subscribers in getting new readers. Just let us know how many you can use; or, if you prefer, send us the names of the bee-keepers, and we will mail the copies to them. You can then call on them later and ask them to subscribe. Nearly every week we offer some premiums for the work of getting new subscriptions.

The Apiary of A. A. Brimmer is also pictured on the first page this week. It seems to be a very pretty one, and nicely located. There were 182 colonies in the yard last August, when the picture was taken. It is the largest apiary in that section of the country.

Mr. Brimmer tells us that the American Bee Journal has been a welcome guest in his family ever since its first publication. That means for over 45 years. We often wonder how many old subscribers there will be who could join in the celebration of the 50th birthday anniversary of the American Bee Journal, which, if nothing prevents, could be observed in about 5 years from now.

Japanese Coming to Keep Bees.—The following is taken from a January magazine called "Comfort":

"Mr. Akioki, a Japanese of distinction, is in this country seeking information as to the climate and resources of Texas, where it is proposed to found a colony of his countrymen. He will bring over 300 families, who will settle on a solid tract of 10,000 acres in Bee county. They will undertake bee-farming and silk-culture."

For the truthfulness of the report we will have to refer to Mr. Scholl, of our "Southern Beedom" department. Of course, all those 300 Japanese will want to read the American Bee Journal as soon as they learn our language. We will welcome the whole "Gideon Band" of them to membership in the American Bee Journal family.

Law to Restrict Bees.—The following news item appeared in the Chicago Tribune of Feb. 1, from Des Moines, Iowa:

Representative Wayland to-day introduced in the House a petition from 124 citizens of Defiance, asking legislation "prohibiting the running at large and roaming about our public streets of all honey-bees of whatever variety or species."

The petition sets forth the request is made "realizing the great damage done each year by reason of the common honey-bee roaming about and running at large in our cities and towns, by their continual biting and sipping of the precious fruits and beautiful flowers, to say nothing of their continual buzzing about one's ears from early morning to late at night, and their frequent stinging." The petition was referred to the Committee on Agriculture.

We mentioned this ridiculous matter several weeks ago, but didn't suppose Iowa had a son in her Legislature so silly as to introduce a thing of that kind.

Amerikanische Bienenzucht, by Hans Buschbauer, is a bee-keeper's hand-book of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.



Contributed & Special Articles

Bee-Hives and Beet-Sugar in Germany

BY PROF. A. J. COOK

IN many respects the Germans lead the world. In general agriculture they are away to the front. They have developed the sugar industry—beet-sugar—to a very high position. Indeed, we must go to them for our own beet-seed would we get the best. I hope this will not always be so, and believe it will not, yet experts in Germany think that America has not the requisite climatic conditions to grow or produce the best beet-seed. This seems to me strange, for in our grand country we can find almost any range of climate—hot, cold, dry, or moist.

In bee-culture, however, we do not find the same advance. I have inquired much for honey, and often find none at all, and, when I do find it, it is in form forbidding—great chunks in a wide open vessel, which chunks, when raised, often drip in most untidy fashion. When asked the price, I always find it extremely high. I have never had less than one mark (25 cents) asked for this stuff, which, in America, few would either buy or sell.

In the Agricultural Museum, in the great University of Berlin, is a very extensive and complete collection of agricultural implements. We find the best tools, from the reaper and mower down to plow and hoe. Nor are the bee-hives omitted from this general exhibit. Yet the bee-hives are indeed a surprise. Surely the Germans need a Langstroth to show them the hives that advanced bee-culture demands. There is a large collection of hives in the exhibit, and they are varied. I asked Prof. Plate, who very kindly and courteously showed me through the museum, if these hives represented the hives now in use in the best bee-yards, and he answered that they did. At my request he very cordially allowed me to return to the hives and inspect them carefully at my leisure.

The most of the hives are made of braided or twisted straw rope, though a few are of wood. The straw-hives are attractive to look at, and I imagine would delight the poet. Yet, in America, they would as surely be turned down by the practical bee-man. The most of these straw-hives are of the model of our common box-hives; that is, they open only at the bottom. This quite accounts for the dark-stained chunk honey that is so often found in the market—honey that never would be offered for sale in our own country. Of course, such hives in these days when both in Europe and America foul brood, and possibly other bacterial diseases, wreak their disastrous mischief and ruin in many apiaries, and call for closest scrutiny and inspection of every part of the hives, are not to be tolerated, and will not be by those who are alive to the needs of advanced bee-keeping. In our own country some of the foul-brood laws have worked to eliminate these box-hives as plainly a menace to the industry. We should suppose that the Germans, as open-eyed as are they in all matters of science and scientific research, would be first and loudest to decry any such device that tends so surely to hide the germs or presence of foul brood. For other, though less weighty, reasons—such as queenlessness, weakness, bee-moth—the up-to-date bee-keeper will insist that his methods and implements permit the fullest and freest inspection of all his hives.

But the frame hives are also in evidence in this collection. There are several of these, both of wood and straw, and of several sizes and of very varied forms. In these the frames rest on rabbets as they do in the Langstroth hive, yet these hives open only at the end, and so all the frames must be drawn out from the one door at one end of the hive. Several of these hives are quite long—as much as a meter in length. I can readily imagine that, once the frames are glued down, it would be a picnic indeed to get them loose and out. So great would be the difficulties of manipulation that I feel sure that the manipulation would be reduced to the minimum, and, in many cases, the bees would not be handled at all, and we would find what are virtually closed or box hives. I can hardly understand how any one could use such hives if he had ever seen or read a description of the real Langstroth hive which opens at the top.

Others of these hives had only the top-bar of the frame,

and so the combs were built or fastened to the side of the hive, and all removal of the frames demand that each comb be cut free from the hive at both ends. Think of the labor, the drip, the killing of bees, not to mention the danger of the comb falling from the top-bar when it had no other attachment! It is said of the great Dzierzon that he used such hives, and became very expert in handling the frames. It is hard to believe that one so gifted—one who gave us the fact of parthenogenesis among bees—could be so slow to appreciate and avail himself of the great discovery of our own Langstroth.

I was also surprised to see so few of the hives that would permit an extra chamber for surplus, or any way to secure top-storing. Of course, the poetry of bee-keeping to-day lies in the production of the beautiful comb honey, in the neat, exquisite sections. All this would be sacrificed in these hives that are wholly without any top openings, and so wholly destitute of provision for surplus outside the brood-chamber.

As I expect to remain in Germany until May, I shall hope to visit some of the most advanced "bee-masters," and shall then see just how the hives are used, and if there are none of our style of hives. If there are none, then surely it would be wise for Germany to provide a thoroughly up-to-date American apiary, that all our implements and methods might be seen and studied. Such an object lesson would surely work a revolution in bee-keeping, as it did in America nearly a half century ago, when Langstroth gave to the world the greatest invention ever known to the bee-keeping art—the movable-frame bee-hive.

BET-SUGAR AS A BEE-FOOD.

The matter of cheap food for feeding bees is one that interests the bee-keepers, especially in such regions as California, where the frequent dry seasons make feeding imperative. At our California beet-sugar factories we can obtain a cheap, poorer article of sugar that is good and safe for bee-food, but not so high-priced as the best granulated sugar. This leads me to say a word of beet-sugar production.

Germany leads the world in this industry. She has a large institution just at the north of this great city, where research and instruction in all matters of beet-sugar production are constantly carried on. There are students from all sections of the world. I never saw a finer, more complete laboratory. The head of this institute is Prof. Herzfeld, who has no superior in beet-sugar lore. As stated above, he thinks Germany alone can produce the best beet-seed. He craves for Germany European markets, and fears only Cuba—and not her, unless she becomes annexed to the United States. In this last case, he fears the energy and push which would come with American ownership. The past year has been one of exceeding prosperity in the beet-sugar industry. The beets have gone 20 tons to the acre, and have given 18 percent sugar. Both these figures are exceptionally high.

30 Heilbronner Strasse, Berlin, Germany.

Why Dequeened Colonies Don't Swarm

BY L. STACHELHAUSEN

WHY will a colony, dequeened so long that it is without unsealed brood during 4 or more days, not swarm?

In an article in the late Western Bee Journal, Mr. Adrian Getaz says that by caging the queen, or dequeening, a colony can be prevented from swarming if this colony is without unsealed brood at least 4 days. The article is reprinted on page 645 (1905). The statement is no doubt correct, but about the explanation given by Mr. Getaz I have some doubts, and will explain it, as Dr. C. C. Miller, in his reply to the mentioned article, is inclined to accept Mr. Getaz's explanation as correct. Mr. G. says:

"During these 4 days or more without unsealed brood, the young bees having no brood to feed, take to the field, and become actually field-bees notwithstanding their age, or rather youngness. Later on, when the queen begins to lay again, the excess of nurse-bees has thus ceased to exist...."

About 40 years ago Baron Berlepsch, in Germany, made exact experiments, which proved that generally the young bees have a play-spell when 9 days old, and will become field-bees on the 16th day after hatching from the cells. Another experiment proves that the bees of a colony, in which no actual field-bees are present, and no brood were to be fed, when 11 days old could not gather any pollen or

honey, and were in a starving condition when the experiments were ceased to save the bees. Baron Berlepsch concludes from this that the bees can't become field-bees earlier than at the regular age, even at the most pressing conditions.

According to the Schoenfeld-Gerstung theory, which I have accepted, the young bee in a normal colony is engaged during the first 3 or 4 days of her life in cleaning the empty cells, just on that spot of the hive where she hatched from the cell. During this time she commences to prepare larval food or chyle, and at the same time the laying queen will arrive on her circling way on the comb here on this spot, and the first surplus chyle prepared by the young bees is offered to her. Three days after the egg is laid the young larva is becoming a consumer of the larval food, and is fed during about 6 days, then the cell is capped by the same bees. This work is done during the first 9 or 10 days of the bee's life, and this is the age at which bees generally have the first play-spell in front of the hive. The young bee does other housework afterwards, and will become a field-bee when 16 days old. This is the normal way, and it is no contradiction to this theory, that older bees, too, can feed the larvae, if this should be necessary. The young bees prepare the larval food instinctively, and a single bee can feed more than one larva, consequently there will not be a surplus of chyle as long as the brood is increasing, and consequently no swarming-fever, as we suppose that a surplus of this chyle—for which the young bees can't find enough consumers—causes an extension of the blood, and thereby the swarming-fever.

We see, if this theory is correct, that young bees in the first 9 or 10 days of their age only prepare the larval food, consequently a surplus of bees of this age only can cause the swarming-fever. Even suppose that under certain circumstances a bee could become a field-bee about 4 days earlier than usual, this could not have any influence in this respect at all.

We will now consider the condition of the dequeened colony at the time when all the brood is sealed. As soon as the queen is removed or caged no more eggs are laid. A worker-larva is capped on about the 9th day, and 4 days more make 13 days, during which time the queen must be kept from laying eggs. During these 13 days many young bees will hatch, but less and less brood is to be fed. The colony will have the swarming-fever even more than before; queen-cells will be started, which have to be cut out at the proper time, so a swarm or further preparations for swarming are now impossible, as no queen, no eggs, and no young larvae are present. This fact—that the swarming-fever is not satisfied or cured by caging the queen—is one of the reasons why I do not like the plan.

A better explanation of the fact that such colonies do not swarm, seems to me is the following: During these 13 days of confinement of the queen a large number of cells will become empty by the hatching of young bees. As soon as the queen is now released, chyle will be fed to her in large quantities, stimulating her egg-laying power, and she will find plenty of empty cells in which to lay eggs. This is the first consumption of the surplus chyle; 3 days afterward young larvae are to be fed, and will become consumers of chyle. In most cases this will be sufficient to do away with the swarming-fever.

But we will suppose that new preparations for swarming should be made, queen-cups started, and the queen should lay eggs in them, as it is natural with prime swarms. Before a swarm would issue normally, at least one of these cells must be sealed; this can't be before $8\frac{1}{2}$ or 9 days after releasing the queen, or $21\frac{1}{2}$ days after caging her. As a worker-bee hatches from the cell 20 days after the egg is laid, all the young bees will have hatched from the cells at that time. The colony has many young larvae to be fed compared with the young bees, and no more young bees are hatching. Under such a condition no desire to swarm can exist. If the colony had actually started queen-cells they would be destroyed.

Cibolo, Tex.

Wintering Bees on Solid Sealed Combs—Carniolans

BY E. F. ATWATER

I NOTE the discussion in regard to wintering bees on solid combs of sealed honey. Dr. Miller seems to think that the way to do it is to give the bees room to cluster below the combs. That may be all right in the cellar, but I doubt if the bees would cluster under the frames to any

extent when wintered out-doors. I think they would prefer to be up among the frames.

Now, I'll tell you how I have wintered bees on solid sealed combs in the cold Dakota climate. I used a Hill's device with room for quite a large part of the cluster under it, and a porous quilt covered with a chaff cushion above. The Hill's device would be almost solid full of bees. Those combs do not stay full long. By Jan. 1, I suppose that there are plenty of empty cells.

Now, regarding Mr. O. L. Abbott's big yield from "Carniolans," page 15. From Mr. Abbott's writings in the late Western Bee Journal, I infer that his so-called Carniolans are not Carniolans at all. In that paper he speaks of his "Adel Carniolans," which, as every one knows, were a strain of golden bees bred years ago by Mr. Alley, and originally from grey Carniolan stock, but mated in a locality not free from Italian drones. By selecting the yellowest all the time, I maintain, as do many others, that Mr. Alley bred out all the Carniolan blood, and had practically a good strain of golden Italians. Mr. Alley, himself, now advertises them as his golden "Adel Italians."

Mr. Abbott, in the paper above mentioned, quoted from the biography of Capt. Hetherington in favor of the Carniolans. Now, be it known that the Carniolans that found such favor with the late Capt. Hetherington, were of the genuine grey Carniolan stock, and not any so-called, but not proven, Adel "Carniolans." I have handled the "Adel" strain, and, I say most emphatically, that they are not Carniolans.

I like the grey Carniolans the best of any bees that I have ever tried for comb honey in this locality. They give no more trouble from swarming than Italians here. They do surely combine most of the good qualities of both blacks and Italians, and average gentler than the Italians. In four years' trial their faults have yet to be seen. They use less propolis than any other race. Meridian, Idaho.



Southern Beedom *

Conducted by LOUIS H. SCHOLL, New Braunfels, Tex.

"Fair Shake" for Canadians

Hello, "Canadian Beedom!" A return hand-shake from "Southern Beedom" for the greetings on page 69. But, look here, ye Canadians (and we won't say it in an "aside stage whisper"), are we Southerners to be beaten just because you have those "long winter evenings" sufficiently cold to aid in "crystallizing your own thoughts"? While you may have those advantages "Up North," bee-keepers "Down South" have those of warm weather that would make their thoughts flow out in gushing streams! But it is not our intention to "flood out" others; neither will we be prone to let others "freeze out" us, but we expect to go hand in hand and work for the good of all, for "we be brethren."

Something About Baby Nuclei

"The baby nuclei are a success, but there is too much work to get the same results as from the larger nuclei on standard frames."—W. H. LAWS, in *The Apiarist*.

He says in another paragraph: "If we had only a small number of colonies, and devoted all of our time to queen-rearing, we would certainly use the baby nucleus plan of mating queens exclusively, for a large number of queens can be mated with few bees; but there is an immense amount of labor attached to this method. With our bees scattered for 30 miles, and our chief business that of honey-production, we find it more convenient to have our queens mated from the partitioned upper stories of hives on standard frames, and above wire-screens."

A double screen is used over the brood-nest, and a hive-body partitioned into three sections with a flight-hole to each at different points is placed above this. A nucleus on several combs is made in each of the compartments, and being queenless above the double screen, a queen is mated in

each. When through with them the whole is united by simply removing the screen.

The above comes in quite an opportune time, as I have contemplated preparations for rearing a large number of queens to requeen a lot of apiaries soon. I was as yet undecided as to what plan to use for getting the queens puremated, this having to be done at only one or two yards.

The "baby" nucleus seemed to be the thing; but, again, it would have required much time to prepare them. Then they would be on hand afterward with a lot of small combs that could not have well been used for anything else. With the other plan the regular combs can be used for both purposes—during queen-mating, and for honey afterward. Hence, it seems, to me, at least, the most practical.

Some Peculiarities of the Southern Honey-Flow

It is very natural for honey-producing plants to yield nectar in warm, still, sunny weather, but all plants do not require the same weather conditions. Some require damp, cloudy, cool weather; some very dry, hot weather, etc.; but, in all events, the weather conditions have to meet the conditions of the honey-secreting bloom, else it yields no honey.

Here in the South we are not troubled so much with cold weather during the blooming of honey-plants. The bees will visit the bloom, but of all bad weather for honey-gathering it is windy weather. It not only hinders the bees in their flight and work on the bloom, but it is detrimental to honey-secretion. If it rains we have many flowers that the rain can not wash the nectar out of, and the bees will store between showers.

Three years ago I took off a nice crop of honey the first of March, gathered from the mayhaw—the earliest crop of honey ever reported from this section. The weather was cool but sunny.

We had 3 days of cool, damp, cloudy weather last year in August. During that time I visited my Magnolia apiary, and on approaching it I heard the heavy roar of the bees. I thought wholesale robbing was in full force, but I soon saw that they were gathering honey, and, looking on the alighting-board, I saw particles of magnolia blooms. This told the tale. I went a few rods into the swamp, which was beautifully decorated with the large, rich magnolia blooms. I examined a bloom. There was the nectar visible, and all the bees had to do was to alight, fill themselves and return. The weather soon cleared off and the magnolia honey was no more. These 3 days of damp, cool, cloudy weather saved me from having to feed a part of my bees last year, and also saved many old-style gums from being turned bottom end up the coming spring, in this section.

We had a very dry, sultry spell here the latter part of last August, and up to this time bees were living from hand to mouth. All at once they began storing from the cotton bloom, though it looked as if the cotton was going to die in the fields from drouth and heat, yet it yielded heavily until the bees had stored from 30 to 60 pounds of honey per colony.

The peculiarities of the honey-plants in the South are that they do not all require the same atmospheric conditions for yielding nectar. In many portions we have many varieties of honey-plants, therefore we generally get a crop of honey, and that accounts for our not having to feed our bees. The sudden stop of the honey-flow in many portions of the South last year, when the atmospheric conditions remained the same, was quite a mystery to some of us bee-keepers.

It seems that the sumac and a few other honey-plants require a change in the atmospheric condition during their yielding, or they will suddenly stop. J. J. WILDER.

Cordele, Ga.

To the Southern Bee-Keepers

We have been very anxious to receive communications and reports of all kinds from bee-keepers of the South, on topics connected with bee-keeping. Write me direct, here at my home—New Braunfels, Tex.—and I'll be glad to hear from you. Write me personal letters if you wish, in which you can tell me of your experiences, your successes and your failures—anything relative to apiculture. If you are experimenting with anything let me know about it, or ask me any questions, and I shall be only too glad to help you along.

Any news items or notes, no matter how poorly written,

and if only on a postal card, can be arranged for our department, just so we get the ideas and the news matter.

Remember, also, that our department includes the whole South, no matter where you are. Who will be the first to help make our department a good one?



Our Sister Bee-Keepers

Conducted by EMMA M. WILSON, Marengo, Ill.

A Sister at a Farmers' Institute

Mrs. A. L. Amos, of Comstock, Nebr., has again been invited to address the Farmers' Institute which is to meet at Broken Bow, Nebr., Feb. 14 and 15. The invitation requesting Mrs. Amos to appear on the program, contained these words :

"The people were so pleased with your paper on 'Bee-Culture' at our institute last winter that we desire at this time that you should supplement that paper with further information along the same lines."

What one woman can do many another woman should be able to do. Mrs. Amos has set an excellent example for other sisters to follow. Many of them are most entertaining speakers, and when what they say comes from actual experience in the bee-yard, it is doubly entertaining and helpful to those who are so fortunate as to hear them.

One Woman and Two Colonies

T. Celestine Cummings says in *Successful Farmer*:

"One woman I know started an apiary with 2 colonies and made a net profit the first year of \$100, the second doubled her income, and after that averaged \$250, more or less. When the farmer turns his attention to honey-making on a large scale it becomes one of his most valuable assets, bringing from a reasonable number of colonies more than the returns from all the rest of his farm."

How's that for "one woman"? Can any of the brothers beat it? What a pity that we were not told exactly how that \$100 from 2 colonies was secured. Then after reaching \$250 a year, why did she stop at that? Why not go right on increasing so as to get \$100 more from each 2 colonies?

After reading that item about the farmers, one begins to wonder that there are farmers left. Why don't they all turn bee-keepers?

A Woman's Determination and Success

DEAR MISS WILSON:—I am afraid some of us are not doing our part in helping you with our department. My conscience hasn't been quite clear about it for some time, notwithstanding the various excuses I can bring forth, such as these: A young baby and two other tots to look after. Then I am my own servant and seamstress (though many things are bought ready-made).

I can hear some one say, "Well, why don't she let bees alone?"

I won't do it. So, there! I think I am entitled to a little recreation, pleasure and profit, but—this is not the report.

I had 17 colonies last spring, and have 17 now. They gave me 930 pounds of comb honey, most of which was gathered in the fall, and much of it was fancy. I had "much ado" to keep the bees together, and not allow (?) them to swarm; and it was too much work; I won't have the time this year, so I expect to try a different plan. Since swarming commences here in April, and my best honey-flow is in the fall, I think I'll allow all to swarm once, and thereby have double the colonies for the fall crop; then double them back to the original number after the flow is over. This will be an experiment, for I don't know that I'll get any more honey, for this locality may be somewhat overstocked now. I am situated in a trucking belt, and all available land is under cultivation, so the bees have to take "most any old thing" in any old place they can find.

I had a very good market (Norfolk, Va.) near by, but some bee-keeper has been shipping white clover honey at 10 cents per pound, and buckwheat at 7 cents, so that has lowered the price. (That same honey was retailed at 18 and 20 cents.)

Enough—you have troubles of your own.
MRS. C. D. MEARS.

"When a woman will, she will, you may depend on't;
And when she won't, she won't, and there's an end on't."

Such perversity. I suspect you will go right on keeping bees, and, yes, I predict you will make a success of it, too. But don't get so busy that you forget to write, for we do enjoy hearing from you. Be sure to report how you come out with your plan of allowing the bees to swarm once, and then doubling them up in the fall.

Bees Going Into Top of Hive

DEAR MISS WILSON:—I think it was a case of misunderstanding on your part, and not a full description of my meaning when you answered my question about the bees going past the supers.

I had trouble so in only one hive. You see, in the Hilton hives (which mine are) the super is put inside the hive, and in the case of one colony the super was hardly large enough, leaving room for the bees to get in the top of the hive. This colony was a little sulky because they were disturbed during the swarming time, and the bees seemed to think they were paying me back to fly in the entrance, crawl up to the top of the frames, and come through this little space and build comb to the roof of the hive. I stopped the space in this colony, and as the others did not bother I paid no attention to them.

Now the question is, Would this space cause the bees to "loaf" and not "tend to their 'nittin'" if they did not come up to build comb to the roof? I hope I have made myself plain this time, and I thank you for your courtesy.

(MISS) ELSIE A. CUTTER.

No, you need not be afraid in the least of this space causing the bees to loaf. In fact, it might work a little in the other direction.



Canadian & Beedom &

Conducted by MORLEY PETTIT, Villa Nova, Ont.

Unusual Winter

Temperatures ranging away above the average. Bee-cellars at 60 degrees, and very noisy some days. Out-door bees flying on these days as in May. Frost all out of the ground; bottom clear out of clay roads; farmers plowing and making maple syrup. This is the kind of January we have had. Wonder what sort of summer will follow. The only parallel seems to have been about 23 years ago, and is said to have been followed by a good season. Clover has heaved some in places, but I think not much damage is done yet.

The Brantford Convention

One of the most wide-awake conventions it has been my privilege to attend was the District Bee-Keepers' Convention held at Brantford, Jan. 24 to 26. There were no elections of officers or other routine business—just straight "bee-talk" throughout the sessions. The program simply showed subjects for discussion with no names attached, and each session had a new chairman, who varied the order of proceedings to suit his ideas. Besides the threadbare subjects of winter and spring management, newer ones were introduced, such as " Implements used in the apiary," referring to smoker, comb foundation, brushes, bee-escapes, etc. Withal, there was a freshness and informality to the discussions which made them both interesting and of practical value.

SUGAR SYRUP FOR WINTER STORES.

At the Brantford Convention the consensus of opinion was that sugar syrup is quite equal to honey for brood-rearing, provided pollen is present in the hive. The objection is that we should avoid even the appearance of evil, and the better plan is to save combs of honey for all necessary feeding. Where pollen is scarce in the hive, Jacob Alpaugh, R. H. Smith and others, strongly recommended feeding pollen substitutes, such as pea-meal flour (called "pea-brose"), rye-flour, or any fine meal rich in protein.

SPRING LOCATION OF APIARY—BEE-BRUSHES.

As to location of an apiary in the spring, Mr. Smith objected to a tall spruce hedge, on the ground that while it breaks the wind it also makes too much shade at a time when the bees need sunshine to draw them out.

A good idea brought out by R. F. Holtermann was, to have bees in a valley. They get more early flights with less loss from winds than in an exposed place. Then with side-contraction-packed cover, and storm-door in the portico, they come through the spring without extra protection.

The bee-brush symposium brought out these preferences:

H. G. Sibbald—A goose or turkey wing.

Jas. Armstrong—Coggshall bee-brush.

Jacob Alpaugh—Feather.

Wm. Couse—Whitewash brush.

Lee Beaupre—Green cedar boughs.

Edwin Trinder—Brush of hair.

Mr. Feather, contrary to his name, prefers a paper-hanger's tools; the paper-hanger's brush for the bees, and the wall-scraper for scraping hives and frames.

R. F. Holtermann showed a brush he had from Germany. It is made of hair, and so took the fancy of the members that several expressed a desire to have them imported.

POINTS OF A GOOD BEE-SMOKER.

The smoker discussion was one of the best I have heard on that subject. In fact, the points of a good smoker are seldom brought out at a convention.

One smoker preferred by many has the bellows-boards wider at the thick end of the bellows than at the hinge end. This gives a less clumsy bellows, with practically the same capacity as one that is wide all the way down. The small tube extending half-way up from the "blow-hole" of the bellows to the barrel is just slipped into it, and can be drawn out and scraped with a penknife at any time. Jacob Alpaugh would dispense with this tube entirely, and have barrel and bellows a little closer together. All preferred an outside spring on the bellows.

Nozzles straight and crooked, long and short, were duly discussed. Many prefer the short nozzle.

SMOKER-FUEL.

R. F. Holtermann brought out the point that cedar-bark smoke is liable to taint the honey if used in extracting. At that time he uses small hardwood blocks.

Jacob Alpaugh, R. H. Smith and others, recommend coarse planer shavings. Mr. Alpaugh laid stress on preparing smoker-fuel ahead. He mixes coarse planer shavings with rotten wood and bits of maple bark from the chip-pile. This must be dampened before using. The dampening and the maple bark are the important points.

With real dry fuel, smokers "burn their own smoke." The maple bark holds fire almost like anthracite.

A good smoker lighter, says R. H. Smith, is saltpeter rags. I happen to know that F. J. Miller uses these, too.

IMPROVING THE MARKET FOR HONEY.

In the discussion on how to improve the market for honey, H. G. Sibbald read a letter from one of the Toronto dealers, showing to what extent the sale of honey can be increased by bee-keepers and dealers "talking honey" to their customers.

Wm. Couse pointed out the opportunity which Ladies' Institutes afford for a talk on the uses and food value of honey.

W. J. Craig mentioned Bulletin 146, June, Department of Agriculture, as being a good thing for the sale of honey.

Lee Beaupre spoke of peddling honey from house to house, and showed the advantage of a label telling how to liquefy and care for honey.

F. P. Adams thought a great deal could be done by magazine articles.

Mr. Howard had sold 5000 pounds of honey right at home, in a country place.

Mr. Cross spoke emphatically against the folly of boasting about large crops and big profits.

F. A. Gemmill had seen something peddled in the city in a fancy barrel on two wheels, drawn by a Shetland pony. He thought everybody would want a package of honey from such an outfit.

A good point from R. F. Holtermann was that beekeepers should go before the Retail Grocers' Association in every town and talk up honey. Give them good profit, and post them to push sales.

Mr. Holtermann offered a resolution, asking the Government to give the same help to the marketing of honey as to other farm products. Carried.

CONVENTION POINTS AND POINTERS.

H. G. Sibbald asserts that bees in general in this country have an average of not more than 7 Langstroth frames full of brood at the beginning of the main honey-flow. Therefore, 8 or 10 combs in the brood-chamber at all times are plenty. I would like the opinion of others on that question.

Another point: He does not want brood-rearing to increase after the beginning of a short honey-flow, because the bees hatched 2 weeks before the close of the flow never go to the fields to gather honey, hence are a useless expense.

I maintain that only those bees that have not helped in the harvest are fit to go into winter quarters, as the long winter season is sufficient drain on the system without their having become partly worn out by work. Therefore, the more sealed brood in the brood-chamber at the close of the flow the better; and we want to give the queen as much room as she can use at all times.

The January Canadian Bee Journal is quite festive in a new, dainty-colored gown, decorated with a large Maple Leaf—Canada's emblem.



Mr. Hasty's Afterthoughts

The "Old Reliable" as seen through New and Unreliable Glasses.
By E. E. Hasty, Sta. B. Rural, Toledo, Ohio.

VARIOUS PLANS TO CONTROL SWARMING.

The letter of J. E. Crane, about swarm control, has so many commendable points that I hardly know what to do with it. Mr. Crane is one of those practical brethren that it is well to listen to. Almost discouraging to see how many settled and undisputed things are simply *not so* in the experience of a practical man. I'll dip in first (as, perhaps, most important) at the experience that merely cutting cells all but one does no good whatever. Barely possible that Mr. Crane only means cutting cells once, and that once when there is still unsealed brood to start more with. His remark, however, hardly sounds like that. We scarce need to be told that bees bent on swarming will start more cells, and swarm with the proceeds, if they have the means of doing so. If in a single well-kept apiary just as many colonies will swarm with a lone-cell virgin (and leave the old hive hopelessly queenless) as would have swarmed by the let-alone method, a dozen cells to each hive—that "kind o' knocks us." Sometimes they'll do that trick in almost any apiary, I take it.

Next in order as provocative of (! !) is the experience that virgins 5 days old are better received than those 5 minutes old. Those who have found the opposite can not well all be mistaken. What does this wide diversity of experience mean? And success with 3-weeks'-old virgins is a little stirring, too. Virgin 5 days old in a nucleus may be a very different creature from a virgin badly caged 5 days, or a cage-born virgin never out of her cage. Wonder if that is it.

No special introductory for virgins. Lets them run right in at the entrance. And 12 lost out of 36 seems to have been his very worst record—usually very much better than that. But the proportion of loss in late years is greater than it was 20 years ago—and that's queer again.

I think the general impression is that it is *easy* to introduce a laying queen to a hive from which the prime swarm has just gone out—and Mr. C. finds it nearly impos-

sible. Possibly more would find serious difficulty if they tried it much. (Some of the worst sort of disgruntled old bees going back instead of staying with the swarm?)

His puzzle also is a deep one. Why are colonies requeened with ripe cells much more liable to swarm than those requeened with virgins? Well, the former have a good many days to wait before they can have brood to rear, and time to take to troublesome courses; ("Satan finds some mischief still for idle hands to do.") while with week-old virgins they can have brood quickly, if everything goes well. Not sure that this is the true solution, however. Page 5.

WOULD BROWN-UP DR. PHILLIPS.

Glad to see the face of Dr. Phillips, who has come into such prominence in apiculture now Benton is gone. If the tailor may be retailedored, and the Doctor doctored, my prescription for him would be lots of bee-work in the hot sun—to brown him up a little. Page 6.

"MAY STARVATION" AMONG BEES.

Aware that there is such a thing as May starvation, for I have met it myself; but for an apiary of a dozen colonies all to starve in the latter part of May is ahead of my time. And should expect it in France even less than in northern U. S. This anent Dadant's article on page 7.

TESTING BEESWAX.

"Look a little out" how you use bur-comb pinched up into a lump as a standard of specific gravity to test suspected wax by, as per page 10. Bees are very apt to knead more or less propolis into bur-comb; and propolis is heavier than water, while wax is lighter. Better get your test-lump from wax that has been melted, and thus the propolis and dirt got rid of.

MOVING BEES.

Strikes me that colonies arriving at a new location minus all the field-bees will not, for quite a bit, get to storing 8 or 10 pounds per day. Of course, it's much better to have the old bees left behind rather than to have them all die on the road; but we'll keep our three cheers for the man that will carry them all over the road without any worrying, and with only the usual daily deaths from old age. Page 25.

LIQUID FEED FOR BEES IN WINTER.

As a matter of off-hand opinion about liquid feed in winter, I don't believe bees will take it up in winter much better than they will take it down. May find it better the first time, if it is warm, because warm odors rise. The grand trouble in both cases is that they only take *one meal*, storing none in the combs for future use. Then, directly, there ensues a week so cold that no bees can go outside the cluster, and starvation arrives. If you *must* give liquid food in winter, fill an empty comb with it and put it right where it is needed. To do this remove an outside comb; slip the next 2 or 3 wallward; then insert the comb of feed right square in the middle of the cluster. But there are other things to be thought of also, especially if out-of-doors. Honey from an inside comb may fail to reach the spaces not adjacent. Also a case might arise in which most of the bees were not quite dead yet, but too cold to take feed. Closing the entrance and bringing them into a very warm room ought to save them for the time being. Then put some feed in the top center of two more combs and give them—placing them next but one on each side of the first one given. Six spaces then have the means of life adjacent; and if some bees die in other spaces the colony can exist without them. All this looks very hopeful on paper, but either dysentery or winter breeding, or both, are liable to step in and scoop you at last. Also time, and space and zeal would all play out before many colonies were treated in such a way. Page 25.

A Queen-Bee Free as a Premium.—We are now booking orders for Untested Italian Queens to be delivered in May or June. This is the premium offer: To a subscriber whose own subscription to the American Bee Journal is paid at least to the end of 1906, we will mail an Untested Italian Queen for sending us one new subscription with \$1.00 for the Bee Journal a year. Or, we will renew your subscription to the American Bee Journal for a year, and send a fine Untested Italian Queen—both for \$1.50. Now is a good time to get new subscribers. If you wish extra copies of the Bee Journal for use as samples, let us know how many you want and we will mail them to you. Address all orders to the office of the American Bee Journal.



Doctor Miller's Question Box

Send questions either to the office of the American Bee Journal, or to DR. C. C. MILLER, Marengo, Ill.

NOTE: Dr. Miller does not answer Questions by mail.

Sugar Syrup for Winter Feeding

On page 71, Louis H. Scholl advises for winter feeding "syrup made of one part of best granulated sugar and one part of water." Do you think it is well to have it so thin as that?

ILLINOIS.

ANSWER.—There may be something about feeding in a Southern winter that I don't understand, but I suspect that there may be an advantage in having it thicker. Indeed, I think it possible that there may be some mistake or oversight in the case, and that in his own practice Mr. Scholl would prefer a thicker syrup in winter. I have had good results from using 5 pounds of sugar to a pint of water for late feeding, and I certainly would not want it any thinner to feed in winter. But it is much better to feed early enough for the bees to evaporate the syrup, giving equal parts of sugar and water.

I can not help thinking, too, that Mr. Scholl must have been using figures badly out of repair when he said on the same page that cakes of candy would be too dry if more than 4 pounds of sugar were used to a gallon of water. It would merely mean so much extra boiling, for no candy could result until more than $\frac{1}{4}$ of the water were boiled away.

Salt as a Cure for Bee-Paralysis

On page 107, salt is given as a cure for bee-paralysis. Have others tried it? and is it reliable?

IOWA.

ANSWER.—Yes, it is one of the numerous remedies offered long ago—offered like the others, with great confidence, but, equally like the others, failing when given further trial. It may be of some interest to inquire why it is that so many remedies have been given with confidence, only to fail upon further trial. Perhaps I may illustrate it in this way:

One year I had a colony troubled with bee-paralysis, and I painted my shop red. The paralysis disappeared entirely. But that hardly justified me in saying that red paint near the apiary was a sure cure for paralysis. The truth is, that except in the far South paralysis is likely to disappear of itself, and whatever cure is used before its disappearance gets the credit for the cure, when really the remedy had nothing to do with the cure.

Of course Mr. Johnson is hardly to be blamed for thinking salt a cure when the disease disappeared after its use, but the question is whether he will always find a cure to follow its use. I have had a number of cases of paralysis; I never tried any cure; but the disease always disappeared of itself, and for several years it has not appeared again.

It is also somewhat doubtful whether Mr. Johnson will continue his faith in salt as a remedy for bee-moth, after further trial and careful observation.

What to Produce Honey—City-Lot Bee-Keeping

1. What is a good honey-producing crop?
2. If bees were kept in city lots, would they bother people passing along the street?
3. Which is better, Webster's fumigator or a bee-smoker for manipulating bees?
4. If it would be advisable to use a smoker, what size would you suggest?
5. Could you suggest a place, or several places, as near as possible to my home town, where I could obtain bees, or would it be practicable to have them shipped from a distant State?

CALIFORNIA.

ANSWERS.—1. I suppose you mean what can be planted as a paying crop for forage or other purpose, and at the

same time yield a harvest of nectar for the bees. The number of such plants is not so very great, and yet I don't know that I can give them all. Alfalfa, buckwheat, melilot or sweet clover, onions, beans, alsike, and white clover, and cow-peas, rape, and mustard, are all that occur just now.

2. Not if far enough away from the street, or if there is a high board fence between the bees and the street.

3. I have had no experience with Webster's fumigator, but can heartily recommend a good bee-smoker. No bee-keeper should think of getting along without something of the kind.

4. The larger sizes are better, the largest being none too large; although if you don't intend to do much with bees you can do very well with one of the smaller ones.

5. That goes beyond my knowledge, but by watching the advertising columns of the bee-papers you may find just what you want. It is not advisable to send a long distance for a full colony of bees, the express charges being so very heavy. If you can not get just the kind of bees you want near home, get whatever kind you can, and then you can change the stock by getting a queen of good blood by mail. It costs no more for a queen from the farthest part of the land than it does from the nearest, if she is sent by mail.

How About Long-Tongue Bees?

Are there long-tongue bees? I can hardly swallow that. I think that is only a selling point for those who have queens for sale. I have a few colonies, and I intend to get a few queens this summer, so if there are any with spliced tongues, that is the kind I am after.

WISCONSIN.

ANSWER.—There can be no sort of question that there is a decided difference in the length of bees' tongues. Able men on both sides of the ocean have settled it by actual measurement, and at least some of them can have no possible interest in giving anything but the truth, unless they are bribed outright to lie—a thing that for one I can not believe. But don't make the mistake of thinking that the bee with the longest tongue must necessarily be the best bee. Other things being equal, the bee with the longest tongue is the best bee. But other things are by no means always equal. The bees that will store the most honey are the best bees, whether their tongues are long or short. But when you succeed in getting the best storers, it is just possible that they may excel in tongue-length.

A Beginner's Questions

1. Last spring I bought a colony of bees. Then I purchased an extra hive (a Danzenbaker) to catch the swarm when it came out. Not knowing anything about hiving bees at that time, I made a mess of it in this way: I set the hive in place, with supers on over the brood-frames, leaving the cover off. I cut the limb with the cluster on, shook them into the supers over the frames, and clapped the cover on, and, as a consequence, they built combs over the frames in the empty supers. What shall I do with them? I want to get comb honey. Would it be all right to put a honey-board over these combs in the supers and let them have the whole lower two parts for breeding? or separate the two parts, and how?

2. Who can supply me with the best 10 frame chaff hive to be left over winter on the summer stands?

PENNSYLVANIA.

ANSWERS.—1. Very likely you'd have pretty fair work to leave matters just as they are, putting super or supers on top when the harvest comes. Sooner or later, however, you will be likely to want those bees more fully under control, and out of that super. The probability is that the super is filled with combs and the hive-body at least partly filled. The thing to be done is to get a queen-excluder between the hive and the super, making sure that the queen is below. You will very likely have no trouble in prying up and lifting off the super, putting an excluder over the hive, and then setting the super over the excluder. But to make sure that the queen is below is the critical thing.

Wait till the colony builds up strong; then pry off the upper story. If combs are built between the two stories, it will be well to trim them off. Set the upper story back again, and blow down smoke into it. Have the smoker well loaded, and give it to them good and strong. After a time the bees will begin to run out below at the entrance. Let them. Don't stop till a pint or more have rushed out, and then quickly remove the upper story. Put the excluder over

the lower story and over it the upper story or super. The great probability is that you have the queen below. In a week or so look and see if you find eggs and young larvae below. If not, you must try again. Or, you can take off the super, drum the bees from it up into an empty box, and

then dump them in front of the entrance, letting them run into the hive; 24 days later no brood will be left in the super.

2. That you can tell better than any one else by consulting the advertisements in this Journal a little later, sending for price-lists to those who are most convenient.

Reports and Experiences

An Experience of 1905

In November, 1904, I put one colony and a 4-frame nucleus into the cellar. They wintered well. The colony came out very strong in the spring of 1905. On April 9 I put out my bees for good. On May 28 I put supers on the colony of black bees. On June 9 I brushed all the bees into a new hive from the black or old colony, and was to put a queen with the brood, but she was dead on arrival, and so I waited until June 17 for another queen to arrive. Then I introduced her all right. On July 21 the black bees that were brushed on full sheets of foundation swarmed, and on July 23 I took out all the queen-cells and introduced an Italian queen. On August 31 the brood cast a large swarm, and the nucleus filled its hive by giving it one frame of the brood, and it cast a very large swarm on July 18. From the old colony I sold honey to the amount of \$5, and increased to 6 colonies from 2 in the spring. I put the bees into the cellar on Dec. 1, 1905, and to-day they are all right. I fed in the fall about 25 pounds of sugar. My bees are all Italians, having Italianized them last summer. D. B. BOYNTON.

Brownfield, Maine, Jan. 13.

A Very Poor Season

Last season was a very poor one for the bee-keepers of this (Green) county, with just honey enough in June to cause lots of swarming. I started the season of 1905 with 44 colonies, and put 68 into winter quarters in fair condition. They seem to be wintering all right so far. I had about one-fourth of a crop of surplus honey last season.

Albany, Wis., Jan. 15. FRED LOCKWOOD.

Results of the Season of 1905

In the spring of 1905 I started with 35 colonies. By dividing and swarming, together, I made 72 colonies. I ran 60 colonies for honey, which gave me \$500 pounds, 650 pounds of which was comb honey, and the balance extracted. In the fall, after the honey season was over, I bought 3 more colonies, which made 75. I then divided them and made 152 colonies. All are in fine condition.

I couldn't get along without the American Bee Journal, as it comes to our house every week in the year.

W. H. RAILS.

Orange, Calif., Feb. 1.

Feeding Bees in Winter

I have seen considerable in regard to feeding bees in winter quarters, and I have done it myself with very poor success. About 10 years ago John Canell went into the bee-business in Dorset, Vt., and, being desirous of increase, had a late swarm come out the fore-part of September. He hived them in a box holding about a bushel and fed them a little in the fall. When he put the bees into the cellar, he made a box which I should think was about 6 feet square, with glass on one side. He put it in the cellar on the south side of the house. When the hatchway doors were open the sun would shine right on the glass. He put his hive inside, and began feeding on warm days by holding a piece of honey near the hive and getting the bees on it, then putting it in one corner of the box. For the first few times they would cluster on the glass and he would take a dustpan and return them to the hive. After awhile they would work on the honey in the corner and return to the hive

all right. He fed until the hive was full, and then put them back with the rest of his bees.

The latter part of the next May I was driving by and saw him hiving a swarm of bees. It being so extremely early, I stopped to investigate. He showed me the box it came out of, and I turned it up and looked under and saw the brood capped right to the bottom. The rest of his bees were very poor. He showed me the box with the glass and comb in one corner, and I could see where the hive set in the box. Knowing the man, and from what I saw, I believed every word.

C. M. LINCOLN.

West Rupert, Vt., Jan. 13.

An Experience with Winter-Cases

I started the fall of 1904 with 36 colonies of bees which had been wintering in an open shed packed on top with a chaff cushion in the super, though at the back there was 8 feet of straw, with straw between each hive and on top of the super. But I thought to better them, so got store-boxes and made outside cases like I saw at the Fair in St. Louis, and to make them extra-good I lined them on the inside with building paper. I thought I had them fixed up, and I did. But for some unaccountable reason I lost all of my bees except 10 colonies. Then foul brood broke out. I had that to fight all summer, but I got about 300 pounds of honey and increased to 20 colonies, which are under an open shed and well packed in forest leaves and straw. No more outside cases for me. My bees did not starve, as there was honey in every hive but one.

San Jose, Ill., Jan. 11. FRED TYLER.

Bees Wintering Well

We are having a very open, mild winter so far, the coldest being 8 degrees above zero. Bees are wintering well. Mine are packed in planer-shavings in winter-cases. But we had a very wet, cold fall, so I think there will be quite a loss through this section among the careless ones, as lots of bees were light in stores and in young bees also. I had to feed all of mine from 5 to 20 pounds each to put them in shape for the winter. We had a fair white honey crop, but no dark honey here the past season. There are not many bees here—only a few among the farmers. When I moved here last April, a number of the people had never seen any extracted honey, except as they squeezed it up—bee-bread, black combs and all, and hung it up in a cloth to drap out.

H. F. STRANG.
Hesperia, Mich., Jan. 12.

Carrying in Pollen

My 17 colonies are wintering nicely so far. I had to feed them for winter. I have 6 in the cellar and 11 on the summer stands. We are having a fine winter so far. The bees get out every few days, but all colonies having no food will lose their bees. I took off only 50 pounds of surplus honey last season, as against 2300 pounds the previous year.

The bees are carrying in pollen this afternoon, which is just one month earlier than last year.

A. J. FREEMAN.

Chanute, Kan., Jan. 18.

Getting Unfinished Sections Cleaned

On page 32 Mr. Hasty tells how he gets some partly-filled sections cleaned of their honey. In the hands of such experienced bee-keepers as Miss Wilson and Dr. Miller, the practice of Mr. Hasty's way would not, I suppose, be attended with any harmful consequences. I have practised it in a small way myself, but have refrained from saying anything about it, knowing that any extensive effort to get sections emptied in this way would lead to disastrous results in the majority of cases. A few

sections with cappings bruised or removed may sometimes be safely put down at the entrances of a few hives late in the day, but to pile a lot of them on the alighting-board with the expectation that the bees of the hive will stand off a lot of robber-bees after the sun is well up next morning, would most certainly result in failure here.

I hope not many bee-keepers have bees like Mr. Hasty's and Dr. Miller's, that do not seem to know a sweet thing at certain seasons of the year, when given to them above the brood-chamber.

Please, Mr. Hasty, do not sling fire-brands around among inflammables any more.

Leon, Iowa.

EDWIN BEVINS.

Poor Season for Bees

The bees did not do any good here last season. I had 32 colonies in the spring, and got 11 swarms during the season. I did not get a pound of surplus, and lost some 5 or 6 colonies. I then doubled back to 20 colonies, and fed about 150 pounds of sugar, so now they will go through all right.

Anderson, Mo., Jan. 13. G. H. WELLS.

Bees All Right So Far

I am cellar-wintering 83 colonies, and so far everything is all right.

Last year wasn't a very good one for bees in this locality. We had a nice lot of clover honey, but the basswood failed.

The American Bee Journal has been quite a help to me.

L. MATSON.

Withee, Wis., Jan. 18.

Perfect Section-Foundation Fastening Machine

A perfect foundation fastening machine must be simply constructed, and easily and rapidly operated.

It must hold the section securely in place while the starter is automatically and accurately centered.

The edge of the heated plate that comes in contact with the starter must not be permitted to touch the section or that part of the machine adjacent to it.

The device must fasten starters $\frac{1}{4}$ of an inch wide as readily as full sheets, and both, if desired, without soiling the section with dripping wax or smoky deposit from the lamp.

Heat from the lamp must be diverted from the operator, and all parts of the machine, except the movable plate, as much as possible.

The heated plate, when not in use, must be in such a position that any adhering wax will drip away from the working parts of the machine.

No device is complete that requires cleaning.

The ideal machine must be capable of securing starters in any and all styles of sections made, with but little change.

Any machine that is operated wholly or in part by a treadle is automatic in name only.

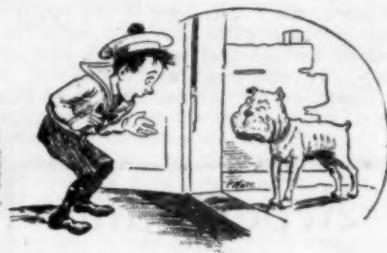
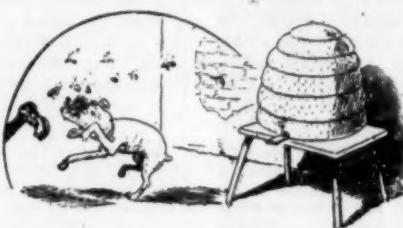
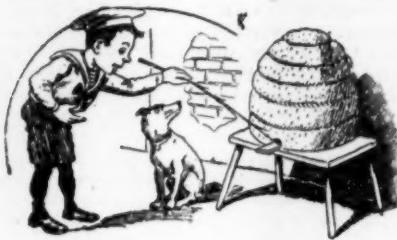
Berkshire Co., Mass.

E. H. DEWEY.

The Season of 1905

The honey crop here in the northeastern part of the State was very light this year. Although the clover bloom was very heavy, there was but very little nectar in it. The weather was too unfavorable here last season. Rain and cold nights seemed to be the cause of it. If it was warm for a day or two so that the bees could work they were hustling, and then came the rain and cold again and they were laid up a day or two where they could gather nothing.

I started in the harvest with 50 colonies and 10 nuclei, spring count, and got 2100 pounds of honey—300 pounds comb honey and the rest extracted. All this was sold out before the middle of October, and on Dec. 1 I put my 78 colonies into the cellar and left 6 out-of-



HOW TO MAKE OUT OF A TERRIER A BULL-DOG.—German Bee-Paper.

doors, as the weather then made a change and turned too cold, and all indications were that it would stay cold, which it has done. However, there is quite a difference between last year at this time and to-day. It then was pretty cold, a little above or below zero, and lots of snow, and snow-drifts blocked the roads; while to-day (Dec. 29) the thermometer shows 34 degrees above zero in the shade, with about 2 inches of snow on the ground. So it seems that this winter will not be so severe on bees as the two preceding winters were.

Bees in the cellar seem all right, as they are quiet, and their merry hum is heard. I am looking forward to a good season next summer. On page 780 (1905), John Cochems, of Manitowoc Co., Wis., says he expects a heavy winter loss. He says we have had a bad fall here for bees. I think the fall, as far as weather goes, was fine, although there was not much honey for bees to gather and fill up their hives for winter. If stores were lacking, the bees should have been supplied with them. I see no reason for such fears. Please, Mr. C., tell us why you expect such heavy loss before spring comes again. I have been feeding mine 150 pounds of honey, so now I will be easy about it until spring comes.

Last summer I filled two Mason jars with honey and set them out in the sun as an experiment, to see how long it would keep liquid when cold weather came. But I have no data as to how long each one was left out in the sun, as I took them in the honey-house in the evening and set them out again when the weather was fine in the mornings. One was out longer than the other; and the one that was out the longer is perfectly clear as water to-day, and the other shows signs of starting to candy. I will try the experiment again next summer, and then will take data as to how long it is kept in the sun.

NORTHEASTERN WISCONSIN CONVENTION.

On Oct. 11, 1905, the Northeastern Wisconsin Bee-Keepers' Association held its annual convention at Mishicot. It was not very largely attended, but those present took an active part in the discussions and helped to make the meeting quite interesting.

After the call to order by the President, the annual dues were collected. Then followed the President's address upon marketing honey; then questions came. The first was, "How can we increase the sale of honey?" and it was thought by producing and putting upon the market an article of the very best quality.

Next a paper was read by Mr. Fred Trapp, on "Preparing bees for winter," showing the difference between cellar and out-of-door wintering. He said that in out-of-door wintering the bees should have sufficient packing to keep them warm and dry, and in some way be cared for so as to carry the dampness away from the cluster. Cellared bees should be prepared so as to carry off the moisture from the cluster, as well as those out-of-doors. Otherwise, it would condense in the hive and mold the comb, which would not be good for the bees.

Mr. N. E. France was with us, and gave a paper on "The Business End of Bee-Keeping," which was right up to the point, showing how much bee-keepers were lacking in business methods, and how best to manage so as always to be up and ahead of the times, and have everything ready for a good crop of honey when it comes.

All the old officers were re-elected: President, C. H. Voigt, of Tisch Mills; First Vice-President, Fred Trapp; Second Vice-President,

J. Sedlack; Secretary, Dr. J. B. Rick, of Mishicot; and Treasurer, John Cochems.

After this some other business was taken up, among which was the report of members as to bees and honey for 1905. Those present showed 283 colonies of bees, spring count, and 9725 pounds of honey; 1025 pounds comb, and the balance extracted.

With this closed another good meeting of bee-keepers which, I think, had lots of value for those that were present. The convention adjourned to meet at the call of the committee in 1906.

C. H. VOIGT.

Tisch Mills, Wis.

Bees Did Fairly Well Last Season

My bees did fairly well last season. I started in the spring with 8 colonies, which increased to 18. I bought 10 swarms for \$10, I furnish-

ing the hives. I found two bee-trees, and saved the bees, and now have 24 colonies all in good shape as far as I can see. I had over 800 pounds of comb honey last season, for which I got 17 cents at the store, and 20 cents for what I peddled.

The American Bee Journal is my favorite paper.

HARVEY CLARK.

Sullivan, Ind., Jan. 30.

CONVENTION NOTICE.

California.—The California State Bee-Keepers' Association will hold its 16th annual convention in the Chamber of Commerce, Los Angeles, Calif., Feb. 20 and 21, 1906. The meeting will be called to order at 1:30 p.m., on the 20th. Any one interested is invited to attend.

J. F. MCINTYRE, Sec.-Treas.

L. L. ANDREWS, Pres.

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Advanced Bee-Culture. Its Methods and Management, by W. Z. Hutchinson.—The author of this work is a practical and helpful writer. You should read his book; 330 pages; bound in cloth, and beautifully illustrated. Price, \$1.20.

A B C of Bee-Culture, by A. L. & E. R. Root.—A cyclopedia of over 500 pages, describing everything pertaining to the care of the honey-bees. Contains about 400 engravings. It was written especially for beginners. Bound in cloth. Price, \$1.20.

Scientific Queen-Rearing, as Practically Applied, by G. M. Doolittle.—A method by which the very best of queen-bees are reared in perfect accord with Nature's way. Bound in cloth and illustrated. Price, \$1.00; in leatherette binding, 75 cents.

Bee-Keeper's Guide, or Manual of the Apiary, by Prof. A. J. Cook, of Pomona College, California. This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 544 pages, 295 illustrations. Bound in cloth. 19th thousand. Price, \$1.20.

Langstroth on the Honey-Bee, revised by Dadant.—This classic in bee-culture has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No aparian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 520 pages, bound in cloth. Price, \$1.20.

Honey as a Health Food.—This is a 16-page honey-pamphlet intended to help increase the demand for honey. The first part of it contains a short article on "Honey as Food," written by Dr. C. C. Miller. It tells where to keep honey, how to liquefy it, etc. The last part is devoted to "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by those selling honey. The more the people are educated on the value and uses of honey the more honey they will buy. Prices: Sample copy for 2-cent stamp; 50 copies for 70 cents; 100 for \$1.25; 250 for \$2.25; 500 for \$4.00; or 1000 for \$7.50. Your business card printed free at the bottom of the front page on all orders for 100 or more copies.

Forty Years Among the Bees, by Dr. C. C. Miller.—This book contains 328 pages, is bound in handsome cloth, with gold letters and design; it is printed on best book-paper, and illustrated with 112 beautiful original half-tone pictures, taken by Dr. Miller himself. It is unique in this regard. The first few pages are devoted to an interesting biographical sketch of Dr. Miller, telling how he happened to get into bee-keeping. About 20 years ago he wrote a small book, called "A Year Among the Bees," but that little work has been out of print for a number of years. While some of the matter used in the former book is found in the new one, it all reads like a good new story of successful bee-keeping by one of the masters, and shows in minutest detail just how Dr. Miller does things with bees. Price, \$1.00.

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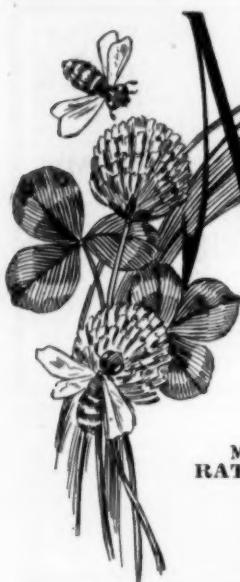
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Honey and + Beeswax+

CHICAGO, Feb. 7.—The demand is about normal with sufficient stocks to meet all requirements. The best grades of white comb honey bring 14@15c, with off grades at 1@3c less, depending upon color, condition and shape. Extracted, aside from white clover and basswood, (choice grades of which are practically unobtainable), is in ample supply at 6@7½c; amber, 6@7c, with off grades still lower. Beeswax, 30c.

R. A. BURNETT & CO.

TOLEDO, Feb. 5.—The market on comb honey at this writing is rather quiet, and prices have weakened somewhat. We are getting for fancy white comb, 14@15c; No. 1, 13@14c. Extracted white clover, in barrels, brings 6@7½c; in cans, 7@8½c, although the supply seems to be exhausted throughout the country. Beeswax, 28@30c.

GRIGGS BROS.

INDIANAPOLIS, Feb. 2.—Fancy white clover comb brings 16c; No. 1, 14c; demand exceeds the supply; fancy white western comb brings 14@15c; amber grades in poor demand at 12c. Best grade of extracted honey brings 8@9c in 60-pound cans; amber, etc. Good average beeswax sells here for \$33 per 100 pounds.

WALTER S. PODER.

DENVER, Feb. 5.—Owing to the mild weather the demand for honey has not been as good as usual at this time of year. We are quoting strictly No. 1 white alfalfa comb honey at \$3.35 to \$3.75 per case of 24 sections; off grade and light amber at \$3 to \$3.30. White extracted alfalfa in 60-pound cans, 7@8½c; light amber, 6@7½c. Beeswax, 24c for clean yellow.

THE COLORADO HONEY-PRODUCERS' ASSN.

NEW YORK, Feb. 19.—The demand is fairly good for better grades of white, and while the near by crop is fairly well cleaned up, new arrivals are now coming in from Cuba, besides several cars have been shipped on from California. We quote fancy white at 15c; No. 1, 13@14c; No. 2, 12c; amber, 11c; buckwheat, 10@11c. Extracted in fairly good demand, especially California, of which there is abundant supply. We quote white sage, 6@7½c; light

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C. H. W. WEBER CINCINNATI...OHIO...

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amber at 6@7c, according to quantity; buckwheat at 6c per pound; Southern at 50@60c per gallon, according to quality. Beeswax steady at 29@31c. HILDRETH & SEGELEEN.

CINCINNATI, Jan. 20.—The honey market is quiet. We do not offer white clover extracted honey on account of its scarcity; instead offer a fancy water white honey, in 60-lb. cans, 2 in a crate, at 7½@8½c; fancy light amber, 7½c; other grades of amber in barrels at 5½@6½c, according to the quality. Fancy comb honey, 16½c.

(Bee-keepers, please observe the above are our selling prices of honey, not what we are paying.)

Beeswax, 30c, delivered here, for the choice, bright yellow grade.

THE FRED W. MUTH CO.

KANSAS CITY, Jan. 22.—The market here on honey is very dull now, as it always is in this time of year; fancy white is selling at \$3.00 per case; 24-section and amber is selling at \$2.75. Extracted, 5½@6c. Beeswax, 25c per pound. C. C. CLEMONS & CO.

CINCINNATI, Jan. 23.—The nice weather holds back the demand for comb honey. Crops seem to be exceedingly short and producers in the West keep the prices high. We quote as follows: Fancy water-white and No. 1 white clover, 14@16c; No. 2, 12@14c. Extracted seems to be more plentiful, and we quote same in barrels, 5½@6½c; in cans, ½c more; white clover, 7@8c. Beeswax, 28@30c. C. H. W. WEBER.

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